Safety Project Evaluation

Order ID:	41000068880
Project ID:	SS-4903CR / 03-16-42054
Signal ID:	03-0257
Location:	NC 24 (Corbett Avenue) and SR 1509 (Queens Creek Road)
GPS Coordinates:	34.703894, -77.154117
County:	Onslow
City:	near Swansboro
Division:	3

Countermeasure(s):	Replace Doghouse Head with Four Section FYA on the Westbound Left Turn Lane on NC 24.
Estimated Project Cost:	$18,125
Completion Date:	4/27/2017

	Start Date	End Date	Length
Before Period	3/1/2013	1/31/2017	3y, 11m
Construction Period	2/1/2017	11/30/2018	1y, 10m
After Period	12/1/2018	10/31/2022	3y, 11m

Analysis Criteria:	Treatment data consists of all crashes at the intersection of NC 24 (Corbett Avenue) at SR 1509 (Queens Creek Road) with an analysis y-line of 150 feet.
Target Crashes:	Left Turn Same Roadway Crashes on Westbound NC 24

Project Development Comparison

Crashes Per Year by Project Time Period	Project Development	Before Period	After Period
Years	5 years	3.92 years	3.92 years
Start Date	9/1/2010	3/1/2013	12/1/2018
End Date	8/31/2015	1/31/2017	10/31/2022
Total	8.40	5.11	10.21
Fatal Injury	0.00	0.00	0.00
Class A Injury	0.00	0.00	0.00
Class B Injury	0.20	0.26	0.26
Class C Injury	2.00	1.02	2.04
Property Damage Only	6.20	3.83	7.91

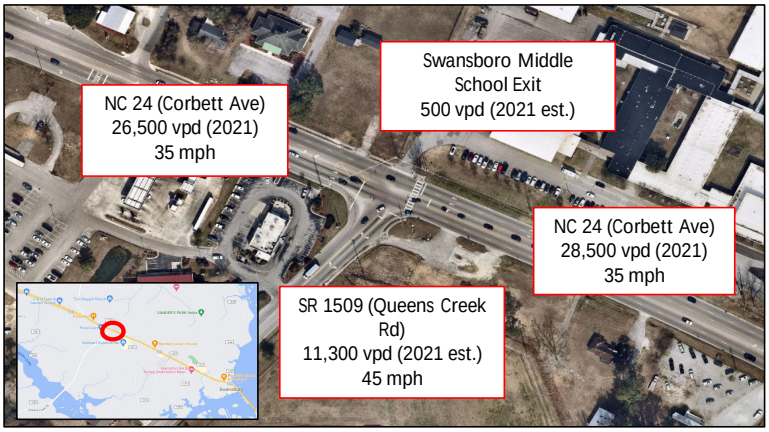
Treatment Information	Before	After	Percent Reduction (-) Percent Increase (+)
Total Crashes	20	40	100.00%
Total Severity Index	2.85	2.67	-6.49%
Target Crashes	5	2	-60.00%
Target Crash Severity Index	2.48	4.70	89.52%
Volume (2015, 2021)	32,300	33,400	3.41%

Injury Crash Summary	Before	After	Percent Reduction (-) Percent Increase (+)
Fatal Injury Crashes	0	0	n/a
Class A Injury Crashes	0	0	n/a
Class B Injury Crashes	1	1	0.00%
Class C Injury Crashes	4	8	100.00%
Property Damage Only	15	31	106.67%

Target Injury Crash Summary	Before	After	Percent Reduction (-) Percent Increase (+)
Fatal Injury Crashes	0	0	n/a
Class A Injury Crashes	0	0	n/a
Class B Injury Crashes	0	0	n/a
Class C Injury Crashes	1	1	0.00%
Property Damage Only	4	1	-75.00%

Additional Information	Before	After	Percent Reduction (-) Percent Increase (+)
Rear End Crashes	6	25	316.67%
n/a			n/a
n/a			n/a
n/a			n/a

Map/Satellite Views



Items for Discussion

-Although the total number of crashes increase substantially, there was a decrease in the number of left-turn crashes from the before to the after period. The additional information indicates the number of rear-end crashes increased substantially.
-For the before period there was 1 eastbound rear-end, 1 westbound rear-end and 4 northbound rear-ends, the during the after period, there were 8 eastbound rear-ends, 13 westbound rear-ends (7 of which occurred in the westbound left-turn lane) and 4 northbound rear-ends.
-An ordinance on NC 24 indicated the speed limit changed from 45 to 35 MPH on 11/30/18, outside of the project scope. The speed limit reduction was included within the construction window (Total of 22 months).
-Based on signal files and aerial imagery, it appears the pedestrian crossing for NC 24 was relocated from the west leg of the intersection to the east leg of the intersection in late 2012/early 2013, just prior to the before period. There were no reported pedestrian or bicycle crashes in the study before or after period.

Data Prepared For:

The Traffic Safety Unit *of the*
Transportation Mobility and Safety Division *of the*
Division of Highways *of the*
North Carolina Department of Transportation

Data Prepared By:

Principal Investigator:	Sarah Wilson
Work Group/Consultant:	Kimley-Horn
Date:	1/31/2023

DISCLAIMER FOR 2020 DATA:

Reductions in typical roadway volumes were experienced Statewide in 2020 due to the COVID-19 pandemic. In addition, the frequency of total crashes in 2020 was found to have decreased from prior years, but the frequency of fatal crashes in 2020 was found to have increased from prior years. The potential impact of the COVID-19 pandemic and shift in data trends should be kept in mind when reviewing traffic safety analyses and/or data reports that incorporate 2020 volume and/or crash data. The analyses and reports that include this data may not represent typical conditions of the areas and locations being reviewed.